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SEQUENCE LISTING

<110> Istituto Superiore di Sanità
ENSOLI, Barbara

<120> HIV-1 Tat, or derivatives thereof, alone or in combination, for prophylactic and therapeutic vaccination against AIDS, tumors and related syndromes

<130> 1354PTWO

<150> RM97A000743

<151> 1997-12-01

<160> 36

<170> PatentIn version 3.1

<210> 1

<211> 261

<212> DNA

<213> Aids-associated retrovirus

<220>

<221> CDS

<222> (1)..(261)

<223> name: wt tat

<400> 1

atg gag cca gta gat cct aga cta gag ccc tgg aag cat cca gga agt 48
Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser
1 5 10 15

cag cct aaa act gct tgt acc aat tgc tat tgt aaa aag tgt tgc ttt 96
Gln Pro Lys Thr Ala Cys Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe
20 25 30

cat tgc caa gtt tgt ttc ata aca aaa gcc tta ggc atc tcc tat ggc 144
His Cys Gln Val Cys Phe Ile Thr Lys Ala Leu Gly Ile Ser Tyr Gly
35 40 45

agg aag aag cgg aga cag cga cga aga cct cct caa ggc agt cag act 192
Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln Gly Ser Gln Thr
50 55 60

cat caa gtt tct cta tca aag cag ccc acc tcc caa tcc cga ggg gac 240
His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Arg Gly Asp
65 70 75 80

ccg aca ggc ccg aag gaa tag 261
Pro Thr Gly Pro Lys Glu
85

<210> 2

<211> 86

<212> PRT

<213> Aids-associated retrovirus

<400> 2

Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser
1 5 10 15

Gln Pro Lys Thr Ala Cys Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe
20 25 30

His Cys Gln Val Cys Phe Ile Thr Lys Ala Leu Gly Ile Ser Tyr Gly
35 40 45

Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln Gly Ser Gln Thr
50 55 60

His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Arg Gly Asp
65 70 75 80

Pro Thr Gly Pro Lys Glu
85

<210> 3

<211> 261

<212> DNA

<213> Aids-associated retrovirus

<220>

<221> CDS

<222> (1)..(261)

<223> name: Cys22 tat

<400> 3

atg gag cca gta gat cct aga cta gag ccc tgg aag cat cca gga agt 48
Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser
1 5 10 15

cag cct aaa act gct ggt acc aat tgc tat tgt aaa aag tgt tgc ttt 96
Gln Pro Lys Thr Ala Gly Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe
20 25 30

cat tgc caa gtt tgt ttc ata aca aaa gcc tta ggc atc tcc tat ggc 144
His Cys Gln Val Cys Phe Ile Thr Lys Ala Leu Gly Ile Ser Tyr Gly
35 40 45

agg aag aag cgg aga cag cga cga aga cct cct caa ggc agt cag act 192
Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln Gly Ser Gln Thr
50 55 60

cat caa gtt tct cta tca aag cag ccc acc tcc caa tcc cga ggg gac 240
His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Arg Gly Asp
65 70 75 80

ccg aca ggc ccg aag gaa tag 261
Pro Thr Gly Pro Lys Glu
85

<210> 4
<211> 86
<212> PRT
<213> Aids-associated retrovirus
<400> 4

Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser
1 5 10 15

Gln Pro Lys Thr Ala Gly Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe
20 25 30

His Cys Gln Val Cys Phe Ile Thr Lys Ala Leu Gly Ile Ser Tyr Gly
35 40 45

Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln Gly Ser Gln Thr
50 55 60

His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Arg Gly Asp
65 70 75 80

Pro Thr Gly Pro Lys Glu
85

<210> 5
<211> 261
<212> DNA
<213> Aids-associated retrovirus

<220>
<221> CDS
<222> (1)..(261)
<223> name: Lys41 tat

<400> 5
atg gag cca gta gat cct aga cta gag ccc tgg aag cat cca gga agt 48
Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser
1 5 10 15

cag cct aaa act gct tgt acc aat tgc tat tgt aaa aag tgt tgc ttt 96
Gln Pro Lys Thr Ala Cys Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe
20 25 30

cat tgc caa gtt tgt ttc ata aca acc gcc tta ggc atc tcc tat ggc 144
His Cys Gln Val Cys Phe Ile Thr Thr Ala Leu Gly Ile Ser Tyr Gly
35 40 45

agg aag aag cgg aga cag cga cga aga cct cct caa ggc agt cag act 192
Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln Gly Ser Gln Thr
50 55 60

cat caa gtt tct cta tca aag cag ccc acc tcc caa tcc cga ggg gac 240
His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Arg Gly Asp
65 70 75 80

ccg aca ggc ccg aag gaa tag 261
Pro Thr Gly Pro Lys Glu
85

<210> 6
<211> 86
<212> PRT
<213> Aids-associated retrovirus

<400> 6

Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser
1 5 10 15

Gln Pro Lys Thr Ala Cys Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe
20 25 30

His Cys Gln Val Cys Phe Ile Thr Thr Ala Leu Gly Ile Ser Tyr Gly
35 40 45

Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln Gly Ser Gln Thr
50 55 60

His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Arg Gly Asp
65 70 75 80

Pro Thr Gly Pro Lys Glu
85

<210> 7
<211> 252
<212> DNA

<213> Aids-associated retrovirus

<220>

<221> CDS

<222> (1)..(252)

<223> name: RGD tat

<400> 7

atg	gag	cca	gta	gat	cct	aga	cta	gag	ccc	tgg	aag	cat	cca	gga	agt	48
Met	Glu	Pro	Val	Asp	Pro	Arg	Leu	Glu	Pro	Trp	Lys	His	Pro	Gly	Ser	
1				5					10					15		

cag	cct	aaa	act	gct	tgt	acc	aat	tgc	tat	tgt	aaa	aag	tgt	tgc	ttt	96
Gln	Pro	Lys	Thr	Ala	Cys	Thr	Asn	Cys	Tyr	Cys	Lys	Lys	Cys	Cys	Phe	
		20						25					30			

cat	tgc	caa	gtt	tgt	ttc	ata	aca	aaa	gcc	tta	ggc	atc	tcc	tat	ggc	144
His	Cys	Gln	Val	Cys	Phe	Ile	Thr	Lys	Ala	Leu	Gly	Ile	Ser	Tyr	Gly	
		35					40					45				

agg	aag	aag	cgg	aga	cag	cga	cga	aga	cct	cct	caa	ggc	agt	cag	act	192
Arg	Lys	Lys	Arg	Arg	Gln	Arg	Arg	Arg	Pro	Pro	Gln	Gly	Ser	Gln	Thr	
	50				55						60					

cat	caa	gtt	tct	cta	tca	aag	cag	ccc	acc	tcc	caa	tcc	ccg	aca	ggc	240
His	Gln	Val	Ser	Leu	Ser	Lys	Gln	Pro	Thr	Ser	Gln	Ser	Pro	Thr	Gly	
65					70					75					80	

ccg	aag	gaa	tag													252
Pro	Lys	Glu														

<210> 8

<211> 83

<212> PRT

<213> Aids-associated retrovirus

<400> 8

Met	Glu	Pro	Val	Asp	Pro	Arg	Leu	Glu	Pro	Trp	Lys	His	Pro	Gly	Ser	
1				5					10					15		

Gln	Pro	Lys	Thr	Ala	Cys	Thr	Asn	Cys	Tyr	Cys	Lys	Lys	Cys	Cys	Phe	
		20						25					30			

His	Cys	Gln	Val	Cys	Phe	Ile	Thr	Lys	Ala	Leu	Gly	Ile	Ser	Tyr	Gly	
		35					40					45				

Arg	Lys	Lys	Arg	Arg	Gln	Arg	Arg	Arg	Pro	Pro	Gln	Gly	Ser	Gln	Thr	
	50				55						60					

His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Pro Thr Gly
65 70 75 80

Pro Lys Glu

<210> 9
<211> 252
<212> DNA
<213> Aids-associated retrovirus

<220>
<221> CDS
<222> (1)..(252)
<223> name: Lys 41 RGD

<400> 9
atg gag cca gta gat cct aga cta gag ccc tgg aag cat cca gga agt 48
Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser
1 5 10 15

cag cct aaa act gct tgt acc aat tgc tat tgt aaa aag tgt tgc ttt 96
Gln Pro Lys Thr Ala Cys Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe
20 25 30

cat tgc caa gtt tgt ttc ata aca acc gcc tta ggc atc tcc tat ggc 144
His Cys Gln Val Cys Phe Ile Thr Thr Ala Leu Gly Ile Ser Tyr Gly
35 40 45

agg aag aag cgg aga cag cga cga aga cct cct caa ggc agt cag act 192
Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln Gly Ser Gln Thr
50 55 60

cat caa gtt tct cta tca aag cag ccc acc tcc caa tcc ccg aca ggc 240
His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Pro Thr Gly
65 70 75 80

ccg aag gaa tag 252
Pro Lys Glu

<210> 10
<211> 83
<212> PRT
<213> Aids-associated retrovirus

<400> 10

Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser
1 5 10 15

Gln Pro Lys Thr Ala Cys Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe
20 25 30

His Cys Gln Val Cys Phe Ile Thr Thr Ala Leu Gly Ile Ser Tyr Gly
35 40 45

Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln Gly Ser Gln Thr
50 55 60

His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Pro Thr Gly
65 70 75 80

Pro Lys Glu

<210> 11
<211> 20
<212> PRT
<213> Aids-associated retrovirus

<400> 11

Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser
1 5 10 15

Gln Pro Lys Thr
20

<210> 12
<211> 20
<212> PRT
<213> Aids-associated retrovirus

<400> 12

Ala Cys Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe His Cys Gln Val
1 5 10 15

Cys Phe Ile Thr
20

<210> 13
<211> 16
<212> PRT
<213> Aids-associated retrovirus

<400> 13

Gln Val Cys Phe Ile Thr Lys Ala Leu Gly Ile Ser Tyr Gly Arg Lys
 1 5 10 15

<210> 14

<211> 15

<212> PRT

<213> Aids-associated retrovirus

<400> 14

Ser Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln
 1 5 10 15

<210> 15

<211> 16

<212> PRT

<213> Aids-associated retrovirus

<400> 15

Arg Pro Pro Gln Gly Ser Gln Thr His Gln Val Ser Leu Ser Lys Gln
 1 5 10 15

<210> 16

<211> 16

<212> PRT

<213> Aids-associated retrovirus

<400> 16

His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Arg Gly Asp
 1 5 10 15

<210> 17

<211> 14

<212> PRT

<213> Aids-associated retrovirus

<400> 17

Pro Thr Ser Gln Ser Arg Gly Asp Pro Thr Gly Pro Lys Glu
 1 5 10

<210> 18

<211> 15

<212> DNA

<213> Aids-associated retrovirus

<400> 18

atggcaggaa gaagc

15

<210> 19
<211> 15
<212> DNA
<213> Aids-associated retrovirus

<400> 19
ctattccttta gttcc

15

<210> 20
<211> 15
<212> DNA
<213> Aids-associated retrovirus

<400> 20
atgggtggca agtgg

15

<210> 21
<211> 15
<212> DNA
<213> Aids-associated retrovirus

<400> 21
tcagcagtc ttgta

15

<210> 22
<211> 15
<212> DNA
<213> Aids-associated retrovirus

<400> 22
atgggtgcga gagcg

15

<210> 23
<211> 15
<212> DNA
<213> Aids-associated retrovirus

<400> 23
ttattgtgac gaggg

15

<210> 24
<211> 15
<212> DNA
<213> Aids-associated retrovirus

<400> 24
atgtggcccc ctggg

15

<210> 25
 <211> 15
 <212> DNA
 <213> Aids-associated retrovirus

<400> 25
 ttaggaagca ttcag 15

<210> 26
 <211> 15
 <212> DNA
 <213> Aids-associated retrovirus

<400> 26
 atgagaattt cgaaa 15

<210> 27
 <211> 15
 <212> DNA
 <213> Aids-associated retrovirus

<400> 27
 tcaagaagtg ttgat 15

<210> 28
 <211> 15
 <212> DNA
 <213> Aids-associated retrovirus

<400> 28
 atggagccag tagat 15

<210> 29
 <211> 15
 <212> DNA
 <213> Aids-associated retrovirus

<400> 29
 ctattccttc gggcc 15

<210> 30
 <211> 27
 <212> DNA
 <213> Aids-associated retrovirus

<400> 30
 ggcccgaagg aaatggcagg aagaagc 27

<210> 31

<211> 27
 <212> DNA
 <213> Aids-associated retrovirus

<400> 31
 ggcccgaagg aaatgggtgg caagtgg

27

<210> 32
 <211> 27
 <212> DNA
 <213> Aids-associated retrovirus

<400> 32
 ggcccgaagg aaatgggtgc gagagcg

27

<210> 33
 <211> 27
 <212> DNA
 <213> Aids-associated retrovirus

<400> 33
 ggcccgaagg aaatgtggcc ccctggg

27

<210> 34
 <211> 27
 <212> DNA
 <213> Aids-associated retrovirus

<400> 34
 ggcccgaagg aaatgagaat ttcgaaa

27

<210> 35
 <211> 24
 <212> DNA
 <213> Simian immunodeficiency virus

<400> 35
 ttaggctacg acccggcgga aaga

24

<210> 36
 <211> 24
 <212> DNA
 <213> Simian immunodeficiency virus

<400> 36
 ataggggtg cagccttctg acag

24